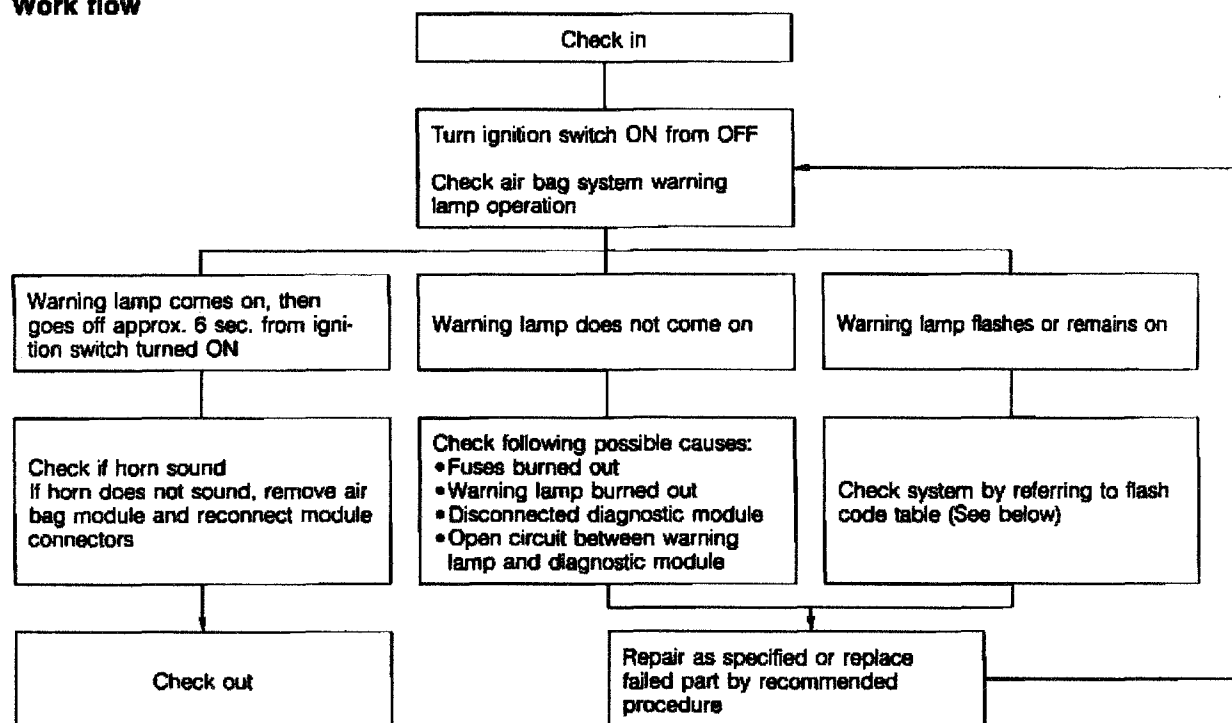


# Air Bag Systems: Technical Service Bulletins

## Troubleshooting Guide

### Work flow



### Work Flow

Troubleshooting Procedure Troubleshooting of the air bag system is performed using the coded flashing of the air bag system warning lamp. The number of times the the warning lamp flashes is based on the type of fault being detected. Codes are prioritized in such a way that if two or more faults occur at the same time, the highest priority fault indication will dominate until corrected.

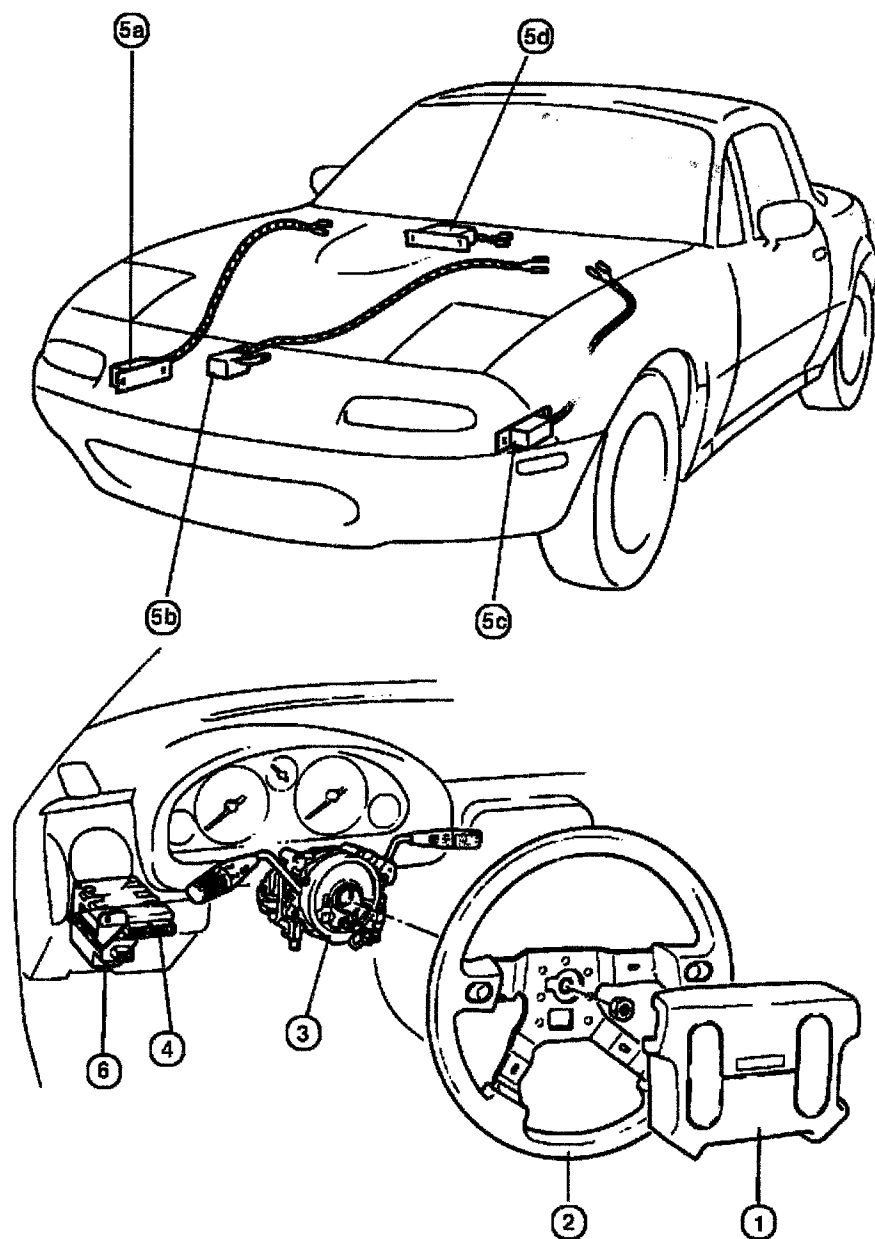
Priority	Flash code	Possible code	Flowchart
1	Remains ON	Faulty diagnostic module or poor connection of diagnostic module connector	1 (See page T-139)
2	Flashes three times	Open circuit or poor connection of power source circuit	2 (See page T-140)
3	Flashes five times	Faulty D-sensor (D-sensor remains ON)	3 (See page T-142)
4	Flashes ten times	Faulty diagnostic module (System-down fuse burned)	4 (See page T-143)
5	Flashes four times	Faulty S-sensor	5 (See page T-144)
6	Flashes six times	Faulty air bag module or poor connection of clock spring connector	6 (See page T-146)
7	Flashes eight times	Poor ground of D-sensor	7 (See page T-148)
8	Flashes nine times	Open circuit between diagnostic module and D-sensor	3 (See page T-142)
9	Flashes two times	Poor ground of all D-sensors	7 (See page T-148)

Flash Code Table

### Note

^ When the ignition switch is turned ON, an audible alarm may be heard. If so, it indicates a simultaneous warning lamp failure and a problem in the air bag system.

Flash code table.

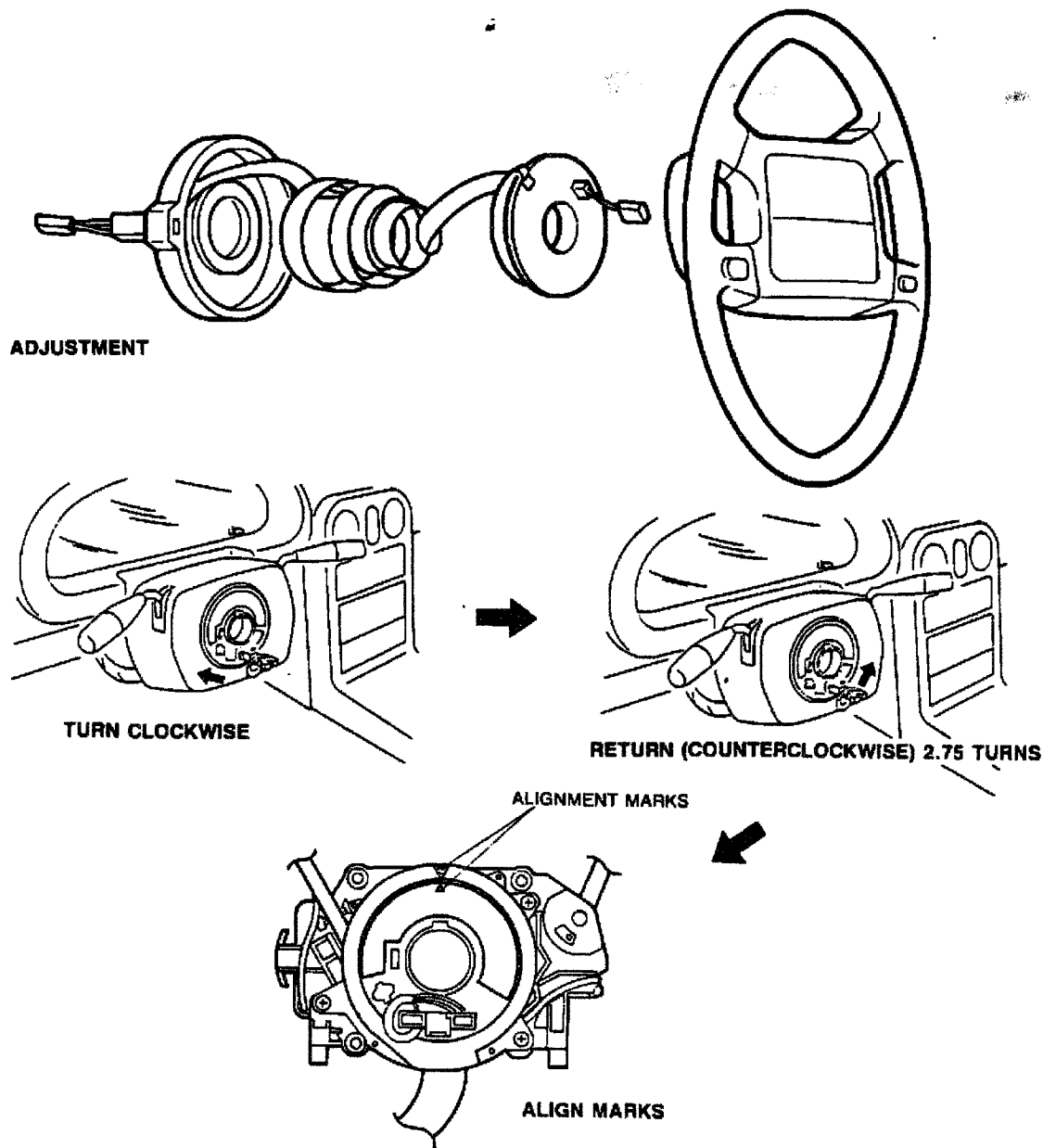


# AIR BAG SYSTEM

## STRUCTURAL VIEW

1. Air bag module
2. Steering wheel
3. Clock spring connector
4. Diagnostic module
5. Crush sensor
  - a. D-sensor (RH)
  - b. D-sensor (CNT)
  - c. D-sensor (LH)
  - d. S-sensor
6. Backup battery

The MX-5 Miata is equipped with a driver side supplementary air bag system, a first for Mazda vehicles. The air bag system is designed to provide increased accident protection for the driver when used in conjunction with the provided seat belt system. For optimum protection, the seat belts should be used by all vehicles occupants.



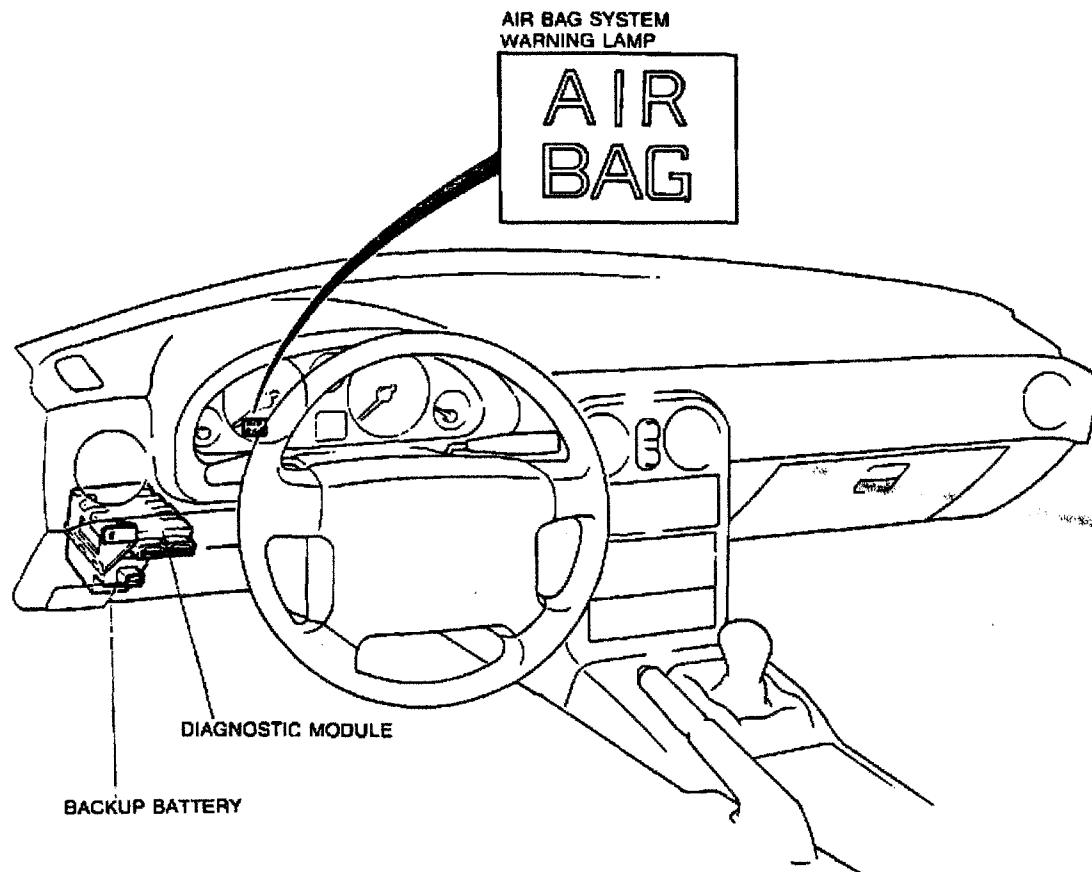
#### CLOCK SPRING CONNECTOR

The clock spring connector is part of the combination switch. The clock spring connector ensures uninterrupted electrical contact to the air bag module while allowing rotation of the steering wheel. The clock spring connector and combination switch are serviced as an assembly.

#### Caution

Whenever the steering wheel is removed, before reinstalling it, set the clock spring connector as follows:

- 1 Set the front wheels straight ahead.
- 2 Turn the clock spring connector clockwise until it stops. (Do not force it.)
- 3 Return the connector 2.75 turns.
- 4 Align marks on the clock spring connector to the outer housing.



#### DIAGNOSTIC MODULE, BACKUP BATTERY, AND AIR BAG SYSTEM WARNING LAMP

**Diagnostic Module** The diagnostic module contains a microcomputer that monitors the electrical system components and connections. The diagnostic module performs a self-check of the electrical circuit and activates the warning lamp if a fault is detected. System electrical faults can be determined by the coded warning lamp displays. If a fault occurs in the system and the warning lamp is malfunctioning, an audible alarm built into the diagnostic module will sound to indicate the need for service. The system-down fuse in the diagnostic module is burned for fail-safe within 1 minute of one of the circuits between the diagnostic module and either of the D-sensors being grounded.

**Backup Battery** The backup battery stores sufficient power to operate the air bag system if battery power is lost during a crash. The back-up battery momentarily holds enough charge to trigger the igniter after the current supply has been interrupted. It will not hold a charge indefinitely.

**Air Bag System Warning Lamp** The air bag system warning lamp is located in the instrument cluster. The warning lamp indicates a problem or failure of the air bag system. If the air bag system is operating properly, the warning lamp comes on when turning the ignition switch ON and goes out after approximately 6 seconds. If the warning lamp fails to come on, fails to go off, or flashes there is a problem in the air bag system, and it must be checked by the recommended procedure.